

# Impact of Technology On the Usage of Money

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**Abstract:** This paper mainly focuses on how technology impacted the payment methods. As per the sources digital payments leads to increase in employment and also reduces the risk of corruptions, theft, carrying huge amount and etc. Digitalization helps an individual to transfer amount from one account to another account easily with high security. Banks play a major role in digitalization, few of the instrument are debit cards, credit cards, internet banking, mobile banking and etc. In 2016, when demonetization decision then people started to pay digitally instead of giving paper cash. In changing environment many technologies are implemented in banking sector and still going on. Over the time, even individuals slowly adapting the technology and started paying their bills, transferring amount vis smartphones, cards.

**Keywords:** Technology, cards, online banking, digital payments.

## 1. Introduction

The advent of the online world has changed the way people interact, the way we receive and discover data, and the way we handle our lives. The internet has changed how people shop, analyze information, and manage their finances. There are a few clear conclusions from looking back at how money was managed 10, 20, and even 50 years ago, and comparing it to how people control their finances today.

For one when it comes to managing their own money, today's person has much more power and access. Secondly, emerging financial trends have an impact on the economy and the way customers spend their time and money and the way businesses operate. Here are some of the 21st century's top money trends, including how money, banking, and shopping have altered over the years.

## 2. Research Objectives

- To study the way of spending habits the technology has brought in the lives of people.
- To evaluate how the digital money is been helpful and how far it is been safe and useful to the people
- To understand the Growth and changes that can come in the ways of spending in coming future and the emerging things in it.

## 3. Research Methodology

As per the study, we obtained data from various sources. Both primary data and secondary data helped us to understand how people are switching from traditional (offline cash

transfer) payments to modern (online transfer) payments methods. And also, to understand whether they feel secured to use modern methods. To get the required information we collected data from newspapers, reports, conference papers, blogs, reports and etc. at the same time we collected data in field (Primary research). Primary data is collected using Google forms. This study is conducted on 100 individuals from different working professionals and students of all age groups. His data is collected mostly in Andhra Pradesh & Telangana. The study was conducted for a month as part of learning experience in the month of December. Here the data is analyzed using pie charts.

Individuals age group who participated in survey:

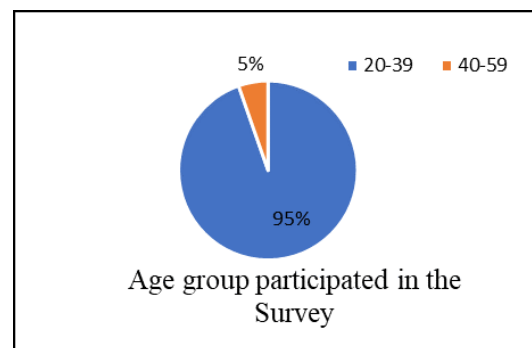


Fig. 1. Age group participated in the survey

The survey conducted by us has more than 95% participants from the age group between 20-39 which is the most active working population age in the country and 5% participation from the age group between 40-59 years of age.

## 4. Modes of Payments

- **Checks:** There are many questions on where and when experiments begin, with some scholars tracing their use back to Ancient Romans in 352 B.C. In Amsterdam, Holland, however as people started depositing their money into bank accounts, the idea of checks became more evolved, and cashiers gave out "notes," which were basically debits from the user's account. (Gerdes & II, 2002). In 1762, in England, Lawrence Childs used the first written check. Serial numbers were also applied to the tests at this time as a means of keeping track of them. (Quinn & Roberds, 2007) Checks have been a reasonably stable method of payment from then on. It was the standard to go

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into the bank on payday during the 80s and 90s, cash your check, and pay your bills all at once. (Palacios & Gupta, 2008).

- *Cards*: For thousands and thousands of years, paper money has been around. Credit cards were not introduced until the 1950s, and debit cards were invented in the 1970s. The Automated Teller Machine (ATM) was also invented around the same time. These advances laid much of the foundations for many improvements in money to come and opened up choices for buying while paying for goods, as well as providing a strong way for individuals to track their finances. (Pudaruth, Juwaheer, & Madoo, 2013). As they reinvented spending and made performing purchases as simple as swiping a key, credit cards and debit cards gained tremendous popularity. Debit cards directly linked buyers to their bank account and credit cards gave the buyer a loan where they could automatically make a purchase as a loan from the issuer of the card and pay them back later. (Ali, Erdener, & Orsay, 2016). Credit and debit cards are being used everywhere today. Nearly every retailer has a credit/debit payment unit. What's more, as an additional security measure (to deter fraud), cards today have "chips" in them where people can simply tap the chip to pay instantly on certain retail machines. (Simon, 2012)
- *Unified payments interface (UPI)*: A single digital payment mode which connects multiple bank accounts. This is tool is introduced by NPCI, which acts an email for digital money & can be operated on smart phones. (Tungare, 2018) Each and every bank has their own UPI's this application is available in all smart phone operating systems. Money can be transferred as per the sender and receiver convience. (G, V, M, & AV, 2020).
- *Mobile wallets*: A wallet used to carry cash in digital form. Here one had to link their credit and debit cards to mobile wallet and payment is done via smart phones. Most of banks and private companies has their own e-wallets. Few of them are Paytm, Airtel pay, SBI buzz, speed pay, and etc. (G, V, M, & AV, 2020).
- *Internet banking*: internet banking is referred as online banking. (G, V, M, & AV, 2020) Use of internet as medium channel to transfer money, opening an account and etc. Internet banking first started in New York 1981. The major advantages of online banking are: cost effective, convenient (to gain customer satisfaction), helps to retain customers. (B & B, 2015) (Jarrett, 2016).
- *Mobile banking*: mobile banking is an application provided by the banks where people can perform n no. of transactions related to payments, transfer of money and etc. at their fingertips. (G, V, M, & AV, 2020) As per the global report it was found that mobile banking is quickly adapted by the people. (Sharma & Kaur, 2016).

### 5. Offline to Online

The digital trend has also influenced the way people shop, bank and handle their finances. E-commerce websites have evolved exponentially, altering the way we purchase presents,

shop for clothing, order supplies, consume media, get an education, and so on, though brick and mortar stores still exist. (Charan & Sharma, 2017).

That's not to suggest that malls, stores, or offices are not frequented by people to get what they want. Though a modern, more convenient way to shop has been implemented, as compared to online, people prefer to shop more on average each month in shopping malls and spend more time in retail stores than they will on a single retail website. And it has been confirmed that customers would spend more money than on an e-commerce website in physical stores. With that said, figures show that e-commerce growth is well beyond in-store sales, a rational indicator that the online market will continue to expand. (Jovović, Femić-Radosavović, & Lipovina-Božović, 2016).

As well as other online payment systems, such as PayPal, credit cards are the predominant method of payment accepted online. PayPal came out in 1998 and is connected directly to the bank account of a person. It also has a consumer rights benefit that allows you to contact them if for whatever reason, charges need to be refuted. PayPal is being embraced as a mainstream payment method by a rising number of e-commerce sites. (Sharma S., 2016).

You will always either go straight to the source or search one of the newspapers or above for leads, if you wanted to buy anything years ago. Mates, relatives, or colleagues have always connected buyers and sellers to a contract. Today, private sales have been taken over by online classifieds, such as Kijiji, Craigslist, and others, making it possible for people to post products for sale online and link them with customers in their local area. (A Study On the Psychology of an Indian Customer Towards E-Banking with Reference to Pune Region, 2012).

People normally went into their banks to pay bills before computers became mainstream or visited the payee directly to make payments. To pay the bills, you could send in checks via snail mail, but it took time for the check to reach its destination, which could be an issue if the payment was due before the money made it there. (Wong, Loh, Bak, & Yap, 2010).

The incorporation of online banking has become one of the greatest developments in finance. It originated in New York in the 1980s, and it was sold at the time by just a few exclusive banks. Although it was referred to as "internet" banking, it was actually best labeled as telephone banking since the customer was able to call the bank and access their funds. It made it possible for individuals to pay their bills and pass money by phone. In 1983, the Bank of Scotland developed the first online banking system called "home link" in the United Kingdom, which was connected via telephone or television, enabling individuals to access their bank statements. (R. Gomathi & Dr. K. Rajini, 2016).

### 6. Data

Indian Government is trying hard to push society move towards digitalization. The below graph shows that people how people changed from ATM cash withdraws to mobile & card payments. When demonetization decision taken by Indian government in 2016, the cash availability in market is low this

resulted in increase of cashless transactions. By the end of 2019, usage of cash came down.

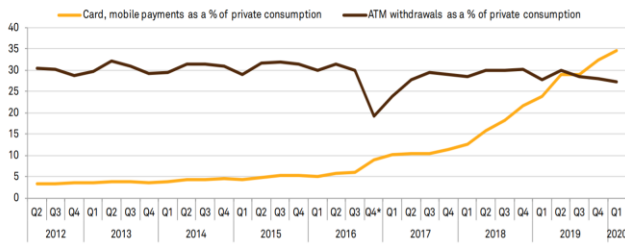


Fig. 2. Usage of cards  
Source: Usage of cards and cards over the years

Payments through mobile increased rapidly instead of cards. This is due to increase in mobile payment apps where these wallets are linked with debit & credit cards and payment is done electronically. When these mobile payment apps are introduced, they provided many facilities like peer-peer transactions, bill payments, many other. Nearly 163% of stored-value accounts payments were rose. In 2019, only 21% of the people prefer to pay using mobile apps and cards, when they directly visit the stores. The below figure shows that within the span of 2 years i.e., usage of mobile payments over cards were increased by 1200 million transactions.

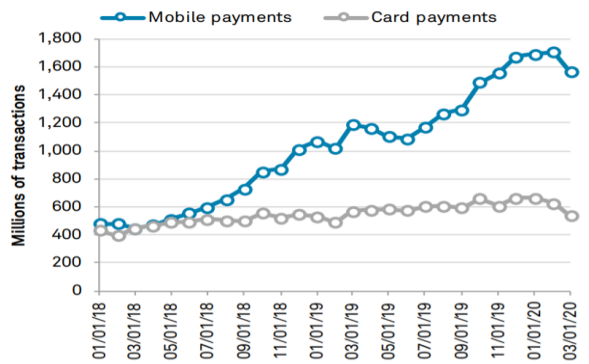


Fig. 3. Mobile and Card payments  
Source: Increase in mobile payments then cards

The figure 4, shows that people are willing to transfer amount using UPI because this results in amount transferred to accounts instead of wallets. So, that people don't like loss interest on amount they hold in wallets this results in mobile payments apps slowly shifting to UPI from wallets.

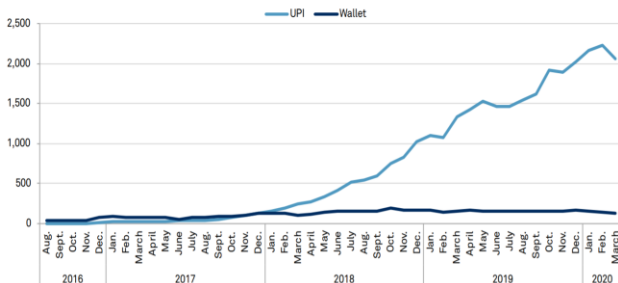


Fig. 4. UPI and Wallet payments  
Source: Payment through UPI increasing rapidly then mobile wallets

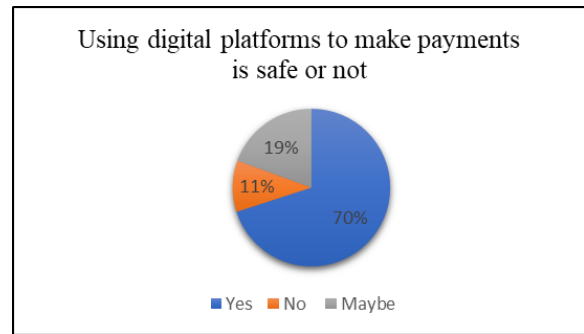


Fig. 5. Using digital platforms to make payments is safe or not

It seems that the people in common feel safer to use the digital platforms while spending the money where it can be through cards, online payments, UPI, and digital wallet.

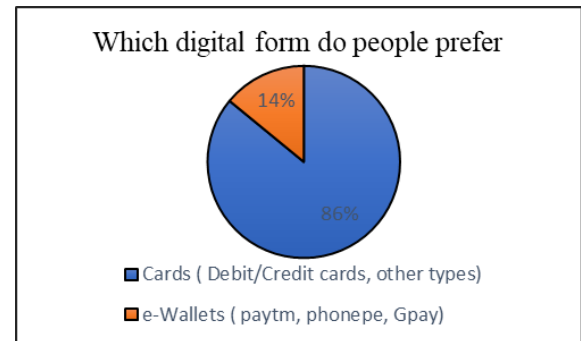


Fig. 6. Which digital form do people prefer

It is seen from the survey that a smaller number of the participants in the survey prefer to use e- wallets like Paytm, Phonepe, Gpay and other type of BHIM UPI apps to spend money as shown in the above chart.

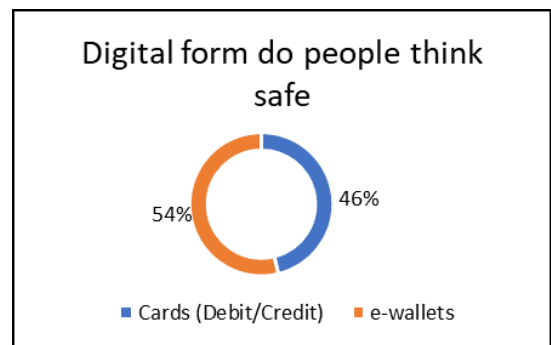


Fig. 7. Digital form does people think safe

It is seen from the survey that majority of the participants in the survey feel safer to use e- wallets like Paytm, Phonepe, Gpay and other type of BHIM UPI apps to spend money rather than debit/credit cards and they also feel that using e wallets is much easier and convenient way than the usage of credit or Debit cards.

Apart from the UPI payment Apps and Cards there is an emerging usage of Postpaid / Pay later apps in the market. These apps provide a credit limit to the users according to their Cibil score and the amount can be used anywhere and can be withdrawn but to be paid with in time limit similar to the credit cards with less limitations and easy accessibility for short term

loans. These apps help for a people avail Short term credit which is less than Rs. 100000 with few KYC steps to follow and is credited to the user account is very less time. This emerging trend is changing the spending habit of customers as they are now able to buy the things they want to at any time of the month and can pay the amount later.

Our survey helps to know how well the People are aware about these applications and how useful these apps are for them.

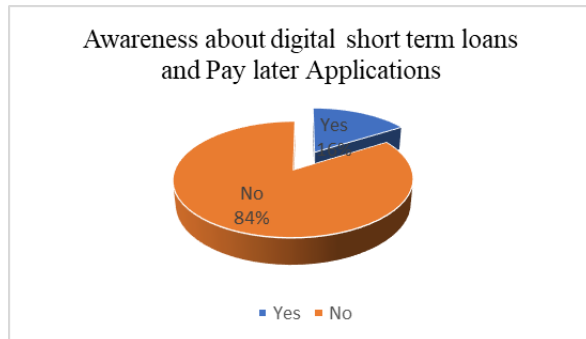


Fig. 8. Awareness about digital short term loans and Pay later applications

The survey says that the people are not much aware about the Pay later applications which is new in the market. Now we will know out of these 16% who are aware of the pay later applications, how many are using them actually.

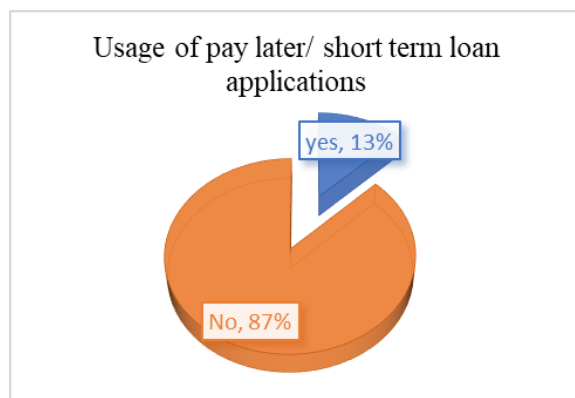


Fig. 9. Usage of pay later/short term loan applications

Very low margin of the Population from the survey are actually using the applications but it seems that it can grow in the coming future with the convenience it has.

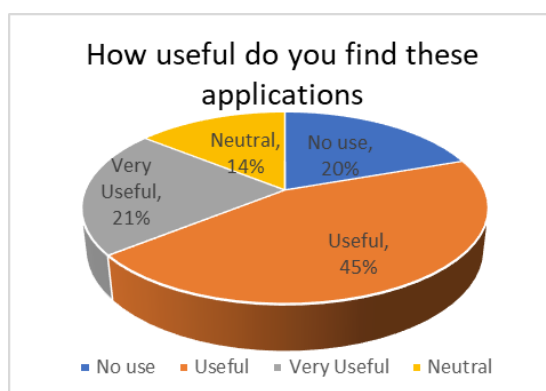


Fig. 10. How useful do you find these applications?

It is seen that the majority of the population finds it Useful while 21% of the population finds it Useful where as 14% finds its use in a neutral way and 20% finds them of No use.

## 7. Conclusion

Payment has witnessed an evolutionary succession. Cash-to-cheque, credit card and debit card methods, and to electronic commerce and mobile banking at present. In this paper we have examined that online payment methods are increasingly used for making online and on-site purchases daily. The problems associated with online payment as well as the adoption of electronic commerce to make payments by clients have been discussed in this article. In addition, the advancement in technology that support the mobile transactions and making them more convenient and transparent is the creation of trust among clients who use this method of payment is becoming common. In this research, the statistics shown suggest that the number of clients using online payment methods continuously growing and making online transactions, referring to the eternal acceptance of online payment systems from academia and industry alike. Nonetheless, the adoption and the introduction of several rising technologies carries new technologies Implementation and design opportunities and challenges.

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